

What it claimed is:

1. A method of producing an Indium Tin Oxide powder comprising the steps of:

- (1) mixing a raw aqueous solution containing indium ions
5 and tin ions and having a proportion of divalent tin ions in the tin ions of 50 wt% or more with an alkali aqueous solution,
(2) separating the product into solid and liquid, and
(3) calcinating the resulted solid.

2. The production method according to Claim 1 wherein
10 the step (1) includes feeding a raw aqueous solution containing indium ions and tin ions and having a proportion of divalent tin ions in the tin ions of 50 wt% or more and an alkali aqueous solution to water of 40°C or more and less than 100°C, and reacting the raw aqueous solution and the
15 alkali aqueous solution under a condition of a pH of 4 or more and 7 or less.

3. The production method according to Claim 1 wherein the raw aqueous solution is prepared by dissolving a water-soluble indium salt selected from indium chloride and
20 indium nitrate and a water-soluble divalent tin salt in water.

4. The production method according to Claim 1 wherein the raw aqueous solution is prepared by dissolving a water-soluble indium salt and a water-soluble divalent tin salt selected from stannous chloride and tin sulfate.

25 5. The production method according to Claim 1 wherein

the raw aqueous solution is prepared by dissolving a substance containing indium, tin and oxygen in an acid.

6. The production method according to Claim 1 wherein the raw aqueous solution is prepared by dissolving a substance
5 containing indium, tin and oxygen in hydrochloric acid.

7. The production method according to Claim 1 wherein the raw aqueous solution is prepared by dissolving a mixture of an indium compound selected from indium oxide and indium hydroxide and a tin compound selected from tin oxide and tin
10 hydroxide in an acid or dissolving Indium Tin Oxide in an acid.

8. The production method according to Claim 1 wherein the raw aqueous solution is prepared by dissolving a mixture of an indium compound selected from indium oxide and indium hydroxide and a tin compound selected from tin oxide and tin
15 hydroxide in hydrochloric acid or dissolving Indium Tin Oxide in hydrochloric acid.

9. The production method according to Claim 1 wherein the raw aqueous solution is prepared by reduction-treating an aqueous solution containing indium ions and tetravalent
20 tin ions.

10. The production method according to Claim 1 wherein the content of tin oxide in the raw aqueous solution in the step (1) is 2 wt% or more and 20 wt% or less based on the total amount of indium oxide and tin oxide.

25 11. The production method according to Claim 1 wherein

the raw aqueous solution is allowed to contact with an ion exchanged resin.

12. The production method according to Claim 1 wherein the calcination is conducted in an atmosphere containing a
5 hydrogen halide and/or a halogen in which the total content thereof is 1 volume % or more and under a condition of a temperature of 600°C or more and 1300°C or less.

13. The production method according to Claim 1 wherein the alkali aqueous solution is an aqueous solution of sodium
10 hydroxide and/or potassium hydroxide.